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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
B-294

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Application Number	Filed
10/721,836	December 8, 2003

First Named Inventor: Terry A. Todd

Art Unit	Examiner
3754	B. Johnson

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- [ ] applicant/inventor.
- [ ] assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- [X] attorney or agent of record. Registration number 33,687
- [ ] attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____

Signature

Stephen R. Christian
Typed or printed name

(208) 526-9140
Telephone number

13 Feb 2007
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

- [ ] *Total of _____ forms are submitted.

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Todd *et al.*

Serial No.: 10/731,836

Filed: December 8, 2003

For: COMPOSITE MEDIA FOR ION PROCESSING AND A METHOD FOR MAKING THE COMPOSITE MEDIA

Confirmation No.: 4419

Examiner: E. Johnson

Group Art Unit: 1754

Attorney Docket No.: B-294

PRE-APPEAL BRIEF

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Pre-Appeal Brief is filed in response to the Examiner's remarks in the Final Office Action ("Final Office Action") mailed December 14, 2006. This Pre-Appeal Brief is submitted in accordance with the requirements of the Pre-Appeal Brief Conference Pilot Program (*see* 1296 Off. Gaz. Pat. Office 67, July 12, 2005) and is submitted concurrently with a Notice of Appeal and Pre-Appeal Brief Request for Review.

REMARKS

Claims 1-17 are currently pending in the application. Claims 1-8 and 10-17 stand rejected. Claim 9 has been objected to as being dependent upon a rejected base claim. Applicants submit that there are clear errors in the rejection of claims 1-8 and 10-17 and that the Examiner has omitted one or more essential elements needed for a *prima facie* rejection.

Claims 1-8 and 10-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,034,149 to Bleys *et al.* ("Bleys") and, in the alternative, as being unpatentable over Bleys in view of United States Patent No. 5,906,734 to Girot *et al.* ("Girot"). The teachings of Bleys and Girot are as set forth on p. 5, 6, and 12 of Applicants' Response filed on October 23, 2006 ("October 2006 Response"), and p. 6 and 10 of Applicants' Response filed on June 29, 2006 ("June 2006 Response"). The pending claims are directed to a composite medium (claims 1-7) and a method of forming a composite medium (claims 8-17) and include independent claims 1 and 8.

Bleys does not teach or suggest a polyacrylonitrile matrix and at least one trialkyl methylammonium compound for the reasons set forth on p. 6-9 of the October 2006 Response, p. 6-8 of the June 2006 Response, and p. 6-7 of Applicants' Response filed on April 18, 2006 ("April 2006 Response"). As such, Bleys necessarily does not teach or suggest the limitation in claim 1 of "at least one trialkyl methylammonium compound homogenously dispersed in a polyacrylonitrile matrix." Bleys also does not teach or suggest this limitation for the reasons set forth on p. 9 of the October 2006 Response and p. 6-8 of the June 2006 Response. The Examiner states that Bleys teaches this limitation because Bleys teaches "dispersed acrylonitrile" and "triallyl methylammonium chloride." Final Office Action, p. 2. However, "dispersed acrylonitrile" and "triallyl methylammonium chloride" do not correspond to the above-mentioned limitation of claim 1 for the reasons set forth on p. 6-9 of the October 2006 Response. The Examiner's reliance on "dispersed acrylonitrile" and "triallyl methylammonium chloride" disregards the language actually recited in claim 1, which is that the trialkyl methylammonium compound is homogenously dispersed in a polyacrylonitrile matrix.

While Bleys teaches acrylonitrile, when properly viewed in its entirety, Bleys teaches that acrylonitrile, styrene, and polyoxyalkylene polyols are polymerized to produce a polymer-modified polyether polyol. As set forth on p. 6 of the October 2006 Response, polyacrylonitrile

is not the product of polymerizing these materials. The Examiner states that "at least some polyacrylonitrile [would form]," but provides no support for this assertion. Final Office Action, p. 7. However, even if polyacrylonitrile were formed (which Applicants do not concede), such polyacrylonitrile would not have a trialkyl methylammonium compound homogeneously dispersed therein, as recited in claim 1, for the reasons discussed below and as set forth on p. 7-8 of the October 2006 Response.

While Bleys teaches using triallyl methylammonium chloride, Bleys does not teach or suggest at least one trialkyl methylammonium compound for the reasons set forth on p. 7-9 of the October 2006 Response and p. 6-8 of the June 2006 Response. Therefore, Bleys necessarily does not teach or suggest that the trialkyl methylammonium compound is homogenously dispersed in a polyacrylonitrile matrix. Furthermore, when the triallyl methylammonium chloride of Bleys is present in the superabsorbent polymer ("SAP") or in the polyurethane foam, the triallyl methylammonium chloride is crosslinked. Since the triallyl methylammonium chloride in crosslinked form is not properly considered triallyl methylammonium chloride, Bleys does not teach or suggest that triallyl methylammonium chloride is homogeneously dispersed in the SAP or in the polyurethane foam. Furthermore, Bleys does not teach or suggest that triallyl methylammonium chloride is homogeneously dispersed in polyacrylonitrile because polyacrylonitrile is not taught or suggested for the reasons discussed above. At best, Bleys teaches that crosslinked, triallyl methylammonium chloride is dispersed in the SAP or the polyurethane foam.

In the alternative, the Examiner relies on Girot as teaching "'trimethyl' ammonium chloride." Final Office Action, p. 4. However, trimethyl ammonium chloride is not a trialkyl methylammonium compound, as recited in claim 1. The methacrylamidopropyl trimethyl ammonium chloride of Girot is not a trialkyl methylammonium compound because the former compound includes a methacrylamidopropyl group and three methyl groups as the substituents on the nitrogen atom of the ammonium chloride. In contrast, the trialkyl methylammonium compound, as recited in claim 1, has three alkyl groups and one methyl group as the substituents on the nitrogen atom. Since the methacrylamidopropyl group of the compound in Girot is not a methyl group, Girot does not teach or suggest the "trialkyl methylammonium compound" recited in claim 1. Therefore, Girot does not cure the deficiencies in Bleys.

Bleys does not provide a motivation to produce the invention of claim 1 for the reasons

set forth on p. 9-10 of the October 2006 Response and p. 8-9 of the June 2006 Response. There is also no motivation to combine Bleys and Girot to produce the invention of claim 1 for the reasons set forth on p. 13 of the October 2006 Response.

Bleys or, in the alternative, Bleys and Girot also do not teach or suggest all of the limitations of claim 8 or provide a motivation to combine to produce the claimed invention for the reasons set forth on p. 10-11 and p. 13-14 of the October 2006 Response. The Examiner relies on "combining in solution," "dispersed acrylonitrile," "triallyl ammonium chloride,", "mixing with water," and "producing a dry foam" as allegedly teaching the method limitations of claim 8. Final Office Action, p. 2. However, these teachings do not correspond to the limitations recited in claim 8 for the reasons set forth on p. 10-11 and p. 13-14 of the October 2006 Response. Again, the Examiner disregards the language actually recited in the method limitations of claim 8 and focuses on the mere mention of the above-mentioned terms and phrases in Bleys as teaching or suggesting the limitations of claim 8.

In numerous instances, the Examiner states that Applicants are arguing features (polyurethane foam, "a crosslinker or lack thereof," "a composite comprising no other polymers other than polyacrylonitrile," and "a film wherein trialkyl methylammonium chloride is not used as a crosslinker") not recited in the rejected claims. Final Office Action, p. 7 and 10-12. However, the Examiner's position is unfounded because the so-called "features" are, in fact, arguments presented to refute the obviousness rejections. Contrary to the Examiner's assertion, Applicants are not arguing that these "features" are recited in the pending claims. Rather, these arguments provide explanations to rebut the obviousness rejections, as set forth on p. 8 of the October 2006 Response and p. 7-8 of the June 2006 Response.

In numerous instances, the Examiner also mischaracterizes Applicants' arguments. For instance, Applicants do not admit, and have not admitted, that "the only potential perceived difference is the presence of double bonds," that compounds containing the same elements "suggests the interchanging of the two," and that alkyl and allyl groups "are identical except for the trivial difference of saturation and unsaturation," as asserted by the Examiner. Rather, Applicants have repeatedly denied these assertions, for the reasons set forth on p. 7-9 of the October 2006 Response and p. 6-8 of the June 2006 Response.

In summary, the Examiner appears to base the obviousness rejections on the mere mention of terms and phrases in the cited references, which do not correspond to the language

recited in claims 1-8 and 10-17. In so doing, the Examiner appears to disregard the language actually recited in the claims.

CONCLUSION

Applicants submit that the Examiner's rejections are clearly erroneous and that the Examiner has not satisfied his burden in setting forth a *prima facie* rejection of claims 1-8 and 10-17. Applicants respectfully request that the rejection of independent claims 1 and 8 be reversed on the above-identified grounds. Dependent claims 2-7 and 10-17 are allowable, *inter alia*, as depending from allowable base claims and for the additional reasons stated on p. 10-14 of the October 2006 Response.

Respectfully submitted,

/Stephen R. Christian/

Stephen R. Christian
Registration No. 32,687
Attorney for Applicants
P.O. Box 1625
Idaho Falls, ID 83415-3899
Phone: (208) 526-9140
Fax: (208) 526-8339

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